

A New Species of *Pilocarpus* Vahl (Rutaceae) from Peru

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ABSTRACT. A new species of *Pilocarpus* Vahl (Rutaceae) from Peru is described and illustrated as *Pilocarpus manuensis* Skorupa. The new taxon is known only from the type locality in Parque Nacional Manu, Peru, and resembles *Pilocarpus demerarae* Sandwith from Guyana.

Pilocarpus is a Neotropical genus of arborescent and shrubby plants, ranging from southern Mexico to southern South America. Throughout its geographic range it may be found in various habitats, such as the moist Atlantic Forest or dry Caatinga in Brazil. In a recent revision of the genus (Skorupa, 1996) 16 species were recognized, including 3 new species from Brazil (Skorupa, 1998) and 1 from Peru. The purpose of this paper is to describe this new Peruvian species.

***Pilocarpus manuensis* Skorupa, sp. nov.** TYPE: Peru. Madre de Dios: Manu, Parque Nacional Manu, Pakitsa Station, trails to N and NE of camp, 11°56'S, 71°16'W, 350 m, 13 Sep. 1989, R. B. Foster & H. Beltran 13183 (holotype, NY; isotypes, F, MO). Figure 1A–C.

Folia imparipinnata; lamina elliptica vel anguste elliptica, apice acuminato; fructus ex 1–3 coccis constans, cocci 12.0–12.5 × 11.0–12.0 mm; seminibus vinaceis quasi nigris, ca. 10.0 × 8.0 mm, hilum ovatum et planum, ca. 3.0 × 1.8 mm. Flores non vidi.

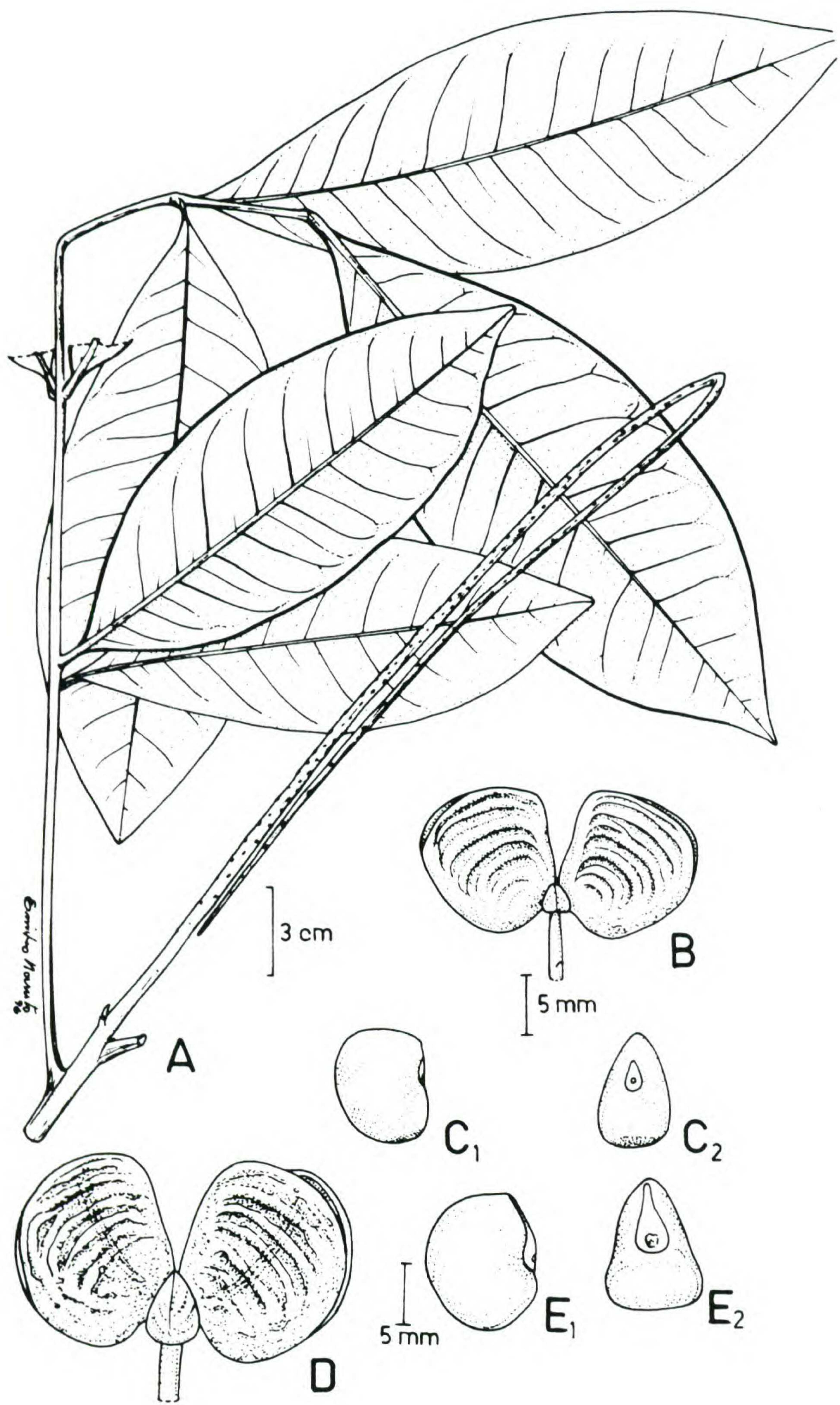
Small tree, reported as 3.0 m tall; terminal branchlets 7.0 mm diam., pale brown, glabrous. Leaves imparipinnate, 3-jugate, alternate, ca. 45.0 × 42.0 cm, distance between pairs 9.0–9.5 cm, the rachis ca. 23.0 cm × 3.0–3.5 mm, continuing beyond the upper pair of leaflets ca. 4.0 cm, glabrous, slightly canaliculate near the leaflets, slightly winged, the wings 0.3–0.5 mm broad, glabrous; petiole inserted at ca. 40°, 13.0–13.5 cm × ca. 3.5 mm, glabrous, slightly canaliculate near the first pair of leaflets, slightly winged, the wings ca. 0.3 mm; lateral leaflets subopposite, the lowermost alternate; the blade shining green above, pale beneath, chartaceous, slightly bullate among secondary veins, glabrous, 18.3–21.0 × 7.5–7.8 cm, narrowly elliptic to elliptic, acute to acuminate at

apex, acumen to 15.0 mm, base slightly asymmetric, attenuate, the margin revolute, entire or slightly undulate; venation brochidodromous, the midvein plane on adaxial surface and prominent on abaxial surface, secondary veins 14–16 pairs, slightly prominent on adaxial surface, prominent on abaxial surface, angle of divergence ca. 65°; petiolule 2.0–4.0 × 2.0–2.5 mm, inserted at 50–60°, glabrous, slightly winged, the wings ca. 0.3 mm broad, slightly canaliculate near wings; terminal leaflet blade 22.5 × 8.5 cm, narrowly elliptic, acuminate at apex, asymmetric and attenuate at base. Raceme terminal, erect, to 55.0 cm long and 3.0–3.5 mm wide in fruit, greenish brown, glabrous; bracts at base 5.0–6.0 mm long, triangular to oblong, pubescent near apex or glabrous; calyx 5-toothed, teeth unequal, 0.2–0.6 × 0.5–1.0 mm, ovate to triangular, rounded at apex, glabrous, ciliate; bractlets 2, ovate with subacuminate apex, glabrous, ciliate, alternate and inserted near middle of the pedicel. Mericarps 1–3, 12.0–12.5 × 11.0–12.0 mm, obovoid, slightly rounded at apex, pale brown becoming dark, glabrous, conspicuous brown glands becoming dark, line of dehiscence reaching to ¼–½ of distance from apex, pedicels 6.5–9.5 mm long in fruit, glabrous; seeds ca. 10.0 × 8.0 mm, obovoid, testa vinaceous to black, the hilum ca. 3.0 × 1.8 mm, ovate and plane. Flowers not seen.

Phenology. Fruiting specimens collected in September.

Distribution. Known only from the type locality in Parque Nacional Manu, southeastern Peru, in forested high terrace and ravine slopes.

Despite the lack of flowering material, the new taxon is distinguished easily from other species of the genus by characters of its vegetative branches, mericarps, and seeds. *Pilocarpus manuensis* resembles *Pilocarpus demerarae* Sandwith because of its compound leaves with a rachis somewhat biarticulate near the apex and its narrowly elliptic to elliptic leaflets with an acuminate apex and a bullate blade. The two taxa may be separated, however, by features of their mericarps and seeds. *Pilocarpus manuensis* has obovoid mericarps with a short line of dehiscence (¼ to ½ of distance from apex),



whereas *P. demerarae* has ovoid to ellipsoid mericarps, larger ($14.5\text{--}16.0 \times 12.5\text{--}13.5$ mm) and with a line of dehiscence more accentuated ($\frac{2}{3}$ to $\frac{3}{4}$ of distance from apex) (Fig. 1D). The larger ($11.0\text{--}12.0 \times \text{ca. } 9.0$ mm), ovoid to ellipsoid seeds of *P. demerarae* also have a remarkable hilum ($5.0\text{--}5.8 \times 2.5\text{--}3.0$ mm) that is conspicuously recurved toward the apex (Fig. 1E), whereas the seeds of *P. manuensis* have a plane, not recurved hilum (Fig.

1C). The two species are allopatric in distribution, the new one known only from Guyana.

Literature Cited

- Skorupa, L. A. 1996. Revisão taxonômica de *Pilocarpus* Vahl (Rutaceae). Ph.D. Thesis, University of São Paulo, São Paulo.
- . 1998. Three New Species of *Pilocarpus* Vahl (Rutaceae) from Brazil. *Novon* 8: 447–454.

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Figure 1. A–C. *Pilocarpus manuensis* Skorupa (R. B. Foster & H. Beltran 13183, NY). —A. General aspect of the branch. —B. Mericarps, lateral view. —C₁ and C₂. Seed, lateral and ventral view. D, E. *Pilocarpus demerarae* Sandwith (D. B. Fanshawe 5610, K). —D. Mericarps, lateral view. —E₁ and E₂. Seed, lateral and ventral view.